

REMARKS

The Office Action dated October 23, 2003, has been received and carefully noted. The above amendments and the following remarks are submitted as the full and complete response thereto.

By this amendment, claims 1 and 2 have been cancelled and claims 3 and 5 have been amended. No new matter has been added. Claims 3-6 are pending and respectfully submitted for consideration.

Claims 1-6 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. As this feature has been canceled from the claims, the rejection is now rendered moot. Accordingly, the Applicants respectfully submit that claims 1-6 are definite, and respectfully request withdrawal of the rejection.

Claim 1 was rejected under 35 U.S.C. § 102(b) as being anticipated by Kajino et al. (U.S. Patent No. 5,857,380, "Kajino"). Claim 1 has been cancelled and claim 3 has been rewritten in independent form. The Applicants respectfully submit that claim 3, as amended, recites subject matter that is neither disclosed nor suggested by Kajino.

Kajino discloses a starter motor which has a speed reduction mechanism that includes, a one-way clutch 6 on a pinion 65 for providing power transmission between a drive shaft 4 and a planetary gear reduction device (Fig. 2). The rotational speed is transmitted to the pinion 65 through a sun gear 19, planetary gears 30, the drive shaft 4, a spline tube 60, and the one-way clutch 6. See Fig. 10 of Kajino. There is a starter motor 2 mounted on the housing with a magnet switch 3. As the magnet switch 3 is energized, a plunger 130 is pulled to the right and a shift lever 66 moves crosswise

thereby pushing the spline tube 60 to the left. The pinion 65 is pushed to the left together with the one-way clutch 6. Just before the pinion hits a ring gear of the engine, the starter motor 2 begins to rotate and the pinion 65 engages with the ring gear of the engine. The rotational torque of an armature shaft 11 is transmitted to the pinion 65 through the sun gear 19, planetary gears 30 the drive shaft 4, the spline tube 60 and the one-way clutch 6. The rotational speed of the armature shaft 11 is reduced by the planetary gear device.

With respect to claim 3, the Applicants respectfully submit that Kajino fails to disclose or suggest the claimed features of the invention. Claim 3 recites that the drive gear moves axially, independently of the speed-reduction and power-cut-off mechanism. In contrast, Kajino discloses that the pinion 65 is pushed to the left together with the one-way clutch. As such Kajino discloses a one-way clutch which moves together with the pinion.

Claim 1 was separately rejected under 35 U.S.C. §102(b) as being anticipated by Ohmi et al. (U.S. Patent No. 5,905,309, “Ohmi”). Claim 1 has been cancelled and claim 3 has been rewritten in independent form. The Applicants respectfully submit that claim 3, as amended, recites subject matter that is neither disclosed nor suggested by Ohmi.

Ohmi discloses a starter with a shock absorbing device including a starting motor 2, a planetary gear reduction mechanism which reduces the rotational speed of the starting motor, a one-way clutch which transmits the rotation thus reduced by the reduction mechanism. A pinion gear 4 is fitted movably on the outer periphery of an output shaft 3. A magnet switch 5 generates a force to move the pinion gear 4 forward and controls the electric power supply to the starting motor 2. The reduction

mechanism comprises a sun gear 11 and a plurality of planetary gears 12 engaged with the sun gear and an internal gear 13 engaged with each of the planetary gears 12. The force of rotation is transmitted to the output shaft 3 through the one-way clutch. The pinion gear 4 which is engaged with an engine ring gear 36 is formed integrally with a spline tube 26 fitted on the output shaft 3 through a helical spline 25, and can move back and forth on the output shaft along the helical spline 25.

With respect to claim 3, the Applicants respectfully submit that Ohmi fails to disclose or suggest the claimed features of the invention. Claim 3, as amended, recites a wedge roller type speed-reduction mechanism, including a plurality of rollers rotatably disposed around a rotational shaft of a starter motor, and a rotatable output shaft having an outer ring disposed around the plurality of rollers. Claim 3 further recites that the rotational shaft is offset from a rotational center of the outer ring and that one of the rollers is movable between the rotational shaft and the outer ring so as to provide a wedge action for power transmission between the starter motor and the output shaft. In contrast, Ohmi fails to disclose a wedge roller type speed-reduction mechanism, including a plurality of rollers rotatably disposed around the rotational shaft of the starter motor and at least a rotatable output shaft having a outer ring disposed around the plurality of rollers, the rotational shaft being offset from a rotational center of the outer ring. Accordingly, Ohmi fails to disclose or suggest each and every feature of the invention as recited in claim 3.

According to U.S. patent practice, a reference must teach every element of a claim in order to properly anticipate the claim under 35 U.S.C. §102. In addition, “[a] claim is anticipated only if each and every element as set forth in the claim is found,

either expressly or inherently described, in a single prior art reference.” Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628,631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). “Every element of the claimed invention must be arranged as in the claim . . . the identical invention, specifically, [t]he identical invention must be shown in as complete detail as contained in the claim.” Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236 (Fed. Cir. 1989) (emphasis added).

As such, the Applicants respectfully submit that Kajino does not disclose or suggest a drive gear moving axially, independently of the speed-reduction and power-cut-off mechanism Ohmi does not disclose or suggest a wedge roller type speed-reduction mechanism including a plurality of rollers rotatably disposed around the rotational shaft of the starter motor and a rotatable output shaft having an outer ring disposed around the plurality of rollers, the rotational shaft being offset from a rotational center of the outer ring as recited in claim 3. Accordingly, Kajino and Ohmi do not anticipate claim 3 nor is claim 3 obvious in view of Kajino and Ohmi.

Claims 2, 3, and 5 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kajino in view of Otaki et al. (U.S. Patent No. 9,531,759, “Otaki”). Kajino was cited for disclosing many of the claimed elements of the invention with the exception of a wedge roller type speed-reduction mechanism. Otaki was cited for curing this deficiency. Claim 2 has been cancelled. The Applicants respectfully submit that claims 3 and 5 recite subject matter that is neither disclosed nor suggested by the cited prior art.

Otaki discloses a friction-roller type speed changer for decelerating or accelerating a rotating force in a drive unit. The wedge rollers 12 a-c can each move in

a circumferential direction in an annular space 10 to transmit rotational force to function as a decelerator or an accelerator, (see Fig. 4). Otaki also states that a single-direction clutch can be omitted by the presence of such friction-roller speed changer of a wedge-roller type. See column 4 lines 25-28 of Otaki.

Claims 3 and 5 recite that the drive gear that moves axially, independently of the speed-reduction and power-cut-off mechanism. Neither Kajino nor Otaki discloses a drive gear that moves axially, independently of the speed-reduction and power-cut-off mechanism. Accordingly, the combination of Kajino and Otaki fail to disclose the features of the invention as recited in claims 3 and 5.

Claims 4 and 6 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kajino in view of Otaki and further in view of Nelson et al. (U.S. Patent No. 3,945,270, "Nelson"). Kajino and Otaki were cited for disclosing many of the claimed elements of the invention with the exception of a plurality of rollers brought into abutment with the rotational shaft and an output ring via an oil film being interposed there between. Nelson was cited for curing this deficiency. Claim 4 depends from claim 3 and claim 6 depends from claim 5. The Applicants submit that claims 4 and 6 recite subject matter that is neither disclosed nor suggested by the combination of Kajino, Otaki and Nelson.

Nelson discloses a rotary motion-transmitting device including traction rollers for transmission motion in either direction from an input shaft to an output shaft.

With respect to claims 4 and 6, the Applicants submit that the combination of Kajino, Otaki and Nelson fails to disclose or suggest the claimed features of the invention. Claims 3 and 5, from which claims 4 and 6 respectively depend, recite that

the drive gear moved axially, independently of the speed-reduction and power-cut-off mechanism. As discussed above, neither Kajino nor Otaki teach or suggest this claimed feature of the invention. Nelson fails to cure the deficiency in Kajino and Otaki as Nelson also fails to disclose a drive gear that moves axially, independently of the speed-reduction and power-cut-off mechanism. Accordingly, the combination of Kajino, Otaki and Nelson does not disclose the features of the invention as recited in claims 3 and 5, and therefore, dependent claims 4 and 6.

Further, the Applicants submit that the Examiner's motivation for modifying Kajino with the teachings of Otaki, in order to arrive at the claimed invention, appears to have been derived from the Applicant's disclosure, which is the improper application of hindsight. Specifically, it would not have been obvious to apply a wedge roller, as disclosed in Otaki, to a starter configured by the combination of a planetary gear and a one-way clutch as disclosed in Kajino.

With regard to each of the rejections under §103 in the Office Action, it is respectfully submitted that the Office Action has not set forth a *prima facie* case of obviousness. The PTO has the burden under §103 to establish a *prima facie* case of obviousness. In re Fine, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the prior art references when combined must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the

reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

As the combination of Kajino, Otaki, and Nelson do not disclose or suggest all the claim limitations, the Applicants respectfully submit that the Office Action has failed to establish a *prima facie* case of obviousness for purposes of a rejection of claims 3-6 under 35 U.S.C. § 103.

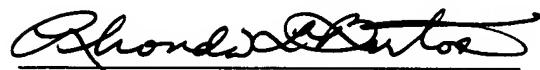
Claim 4 depends from claim 3 and claim 6 depends from claim 5. The Applicants respectfully submit that the dependent claims are allowable at least because of their dependency from allowable base claims 3 and 5, as well as the additional subject matter recited therein. Accordingly, the Applicants respectfully request allowance of claims 3-6, and the prompt issuance of a Notice of Allowability.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicants respectfully petitions for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper,

may be charged to counsel's Deposit Account No. 01-2300, referencing Attorney Dkt. No. 107355-00051.

Respectfully submitted,



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